

Claims:

1. A mutant cytomegalovirus pp65 protein which lacks protein kinase activity, wherein said cytomegalovirus pp65 protein elicits a CTL response against cells infected with cytomegalovirus.
2. An isolated cytomegalovirus pp65 protein of claim 1, which contains the K436N mutation.
3. A DNA encoding a cytomegalovirus pp65 protein of claim 1.
4. A DNA encoding a cytomegalovirus pp65 protein of claim 2.
5. A DNA which comprises pcDNAintpp65mII.
6. A vaccine composition which comprises a cytomegalovirus pp65 protein of claim 1 and a pharmaceutically acceptable carrier.
7. A vaccine composition which comprises a cytomegalovirus pp65 protein of claim 2 and a pharmaceutically acceptable carrier.
8. A cellular vaccine composition which comprises antigen presenting cells that have been treated *in vitro* so as to present epitopes of a cytomegalovirus pp65 protein of claim 1 and a pharmaceutically acceptable carrier.
9. A cellular vaccine composition which comprises antigen presenting cells that have been treated *in vitro* so as to present epitopes of a cytomegalovirus pp65 protein of claim 2 and a pharmaceutically acceptable carrier.

10. A DNA vaccine composition which comprises a DNA of claim 3 and a pharmaceutically acceptable carrier.

11. A DNA vaccine composition which comprises a DNA of claim 4 and a pharmaceutically acceptable carrier.

12. A DNA vaccine composition which comprises a DNA of claim 5 and a pharmaceutically acceptable carrier.

13. A DNA vaccine composition of claim 12 which further comprises an adjuvant.

14. A eukaryotic virus vector which comprises a DNA of claim 3.

15. A eukaryotic virus vector which comprises a DNA of claim 4.

16. A eukaryotic virus vector which comprises a DNA of claim 5.

17. A recombinant live virus vaccine which comprises a DNA of claim 3.

18. A recombinant live virus vaccine which comprises a DNA of claim 4.

19. A recombinant live virus vaccine which comprises a DNA of claim 5.

20. A method of enhancing immunity to cytomegalovirus which comprises administering a vaccine composition of any of claims 6-13 or 17-19.

21. A method of vaccinating against cytomegalovirus which comprises administering a vaccine composition of any of claims 6-13 or 17-19.

22. A diagnostic reagent for detecting the presence of active versus quiescent cytomegalovirus infections which comprises pp65mII transfected target antigen presenting cells.